VISUAL RESOURCES

Testimony of Michael Clayton

SUMMARY OF CONCLUSIONS

Energy Commission staff analyzed both the potential visual impacts of the proposed East Altamont Energy Center (EAEC) structures and lighting and the compliance of those project features with applicable laws, ordinances, regulations, and standards (LORS). The proposed project structures would be prominently situated next to two Alameda County-designated scenic corridors in a highly visible location. Staff's conclusions are as follows:

As presently proposed, the project's structures would result in significant visual impacts. Although the applicant has proposed a landscaping plan to partially screen project structures, staff has concluded that the screening would not reduce the impacts to less than significant levels. Furthermore, because of concerns of the biology staff of the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) regarding impacts on wildlife resources in the immediate project vicinity, staff has been unable to develop an alternative landscape plan that would be both effective in screening project structures and acceptable to those agencies. Therefore, staff has concluded that the significant visual impacts resulting from project structures cannot be mitigated to less than significant levels.

The project's structures would contribute substantially to significant cumulative visual impacts.

Project lighting has the potential to cause significant visual impacts and to contribute substantially to significant cumulative visual impacts. However, proper implementation of mitigation measures proposed by the applicant and expanded by staff (Conditions **VIS-4** and **VIS-5**) would reduce project-specific lighting impacts to levels that would not be significant and would reduce project lighting's contribution to cumulative visual impacts to a less than substantial level.

The significant visual impact that would be experienced by the minority population located north of Byron Bethany Road would be similar to the impact experienced by other dispersed non-minority residences in close proximity to the project site. Therefore, the minority population would not be disproportionately impacted.

Staff finds that the proposed project structures would be inconsistent with seven applicable laws, ordinances, regulations, and standards (LORS) of Alameda County regarding visual resources and partially inconsistent with another. The Alameda County Community Development Agency has found that the project would be consistent with all of the County's applicable LORS regarding visual resources (Alameda County 2002).

INTRODUCTION

Visual resources are the natural and cultural features of the environment that can be viewed. This analysis focuses on whether EAEC would cause significant adverse visual impacts and whether the project would be in compliance with applicable laws, ordinances, regulations, and standards. The determination of the potential for significant impacts to visual resources resulting from the proposed project is required by the California Environmental Quality Act (CEQA).

ORGANIZATION OF ANALYSIS

This analysis is organized as follows:

Description of analysis methodology;

Description of applicable laws, ordinances, regulations and standards;

Description of the project aspects that may have the potential for significant visual impacts;

Assessment of the visual setting of the proposed power plant site and linear facility routes;

Evaluation of the visual impacts of the proposed project on the existing setting;

Evaluation of compliance of the project with applicable laws, ordinances, regulations, and standards;

Identification of measures needed to mitigate any potential significant adverse impacts of the proposed project and to achieve compliance with applicable laws, ordinances, regulations, and standards.

Conclusions and Recommendations; and

Proposed Conditions of Certification.

ANALYSIS METHODOLOGY

Visual resources analysis has an inherently subjective aspect. However, the use of generally accepted criteria for determining impact significance and a clearly described analytical approach aid in developing an analysis that can be readily understood and provides generally replicable results and logical conclusions.

Significance Criteria

Commission staff considered the following criteria in determining whether a visual impact would be significant.

State

The CEQA Guidelines define a “significant effect” on the environment to mean a “substantial, or potentially substantial, adverse change in any of the physical conditions

within the area affected by the project including...objects of historic or aesthetic significance (Cal. Code Regs., tit.14, § 15382).

Appendix G of the Guidelines, under Aesthetics, lists the following four questions to be addressed regarding whether the potential impacts of a project are significant:

1. Would the project have a substantial adverse effect on a scenic vista?

2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
4. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Local

Energy Commission staff considers any local goals, policies, or designations regarding visual resources. Conflicts with such laws, ordinances, regulations, or standards can constitute significant visual impacts. See the section on Laws, Ordinances, Regulations, and Standards.

Professional Standards

Professionals in the field of visual impact analysis have developed a number of questions as a means of evaluating the potential significance of visual impacts (see Smardon 1986). The questions listed below address issues commonly raised in visual analyses for energy facilities. Staff considers these questions in assessing whether a project would cause a significant impact in regard to any of the four CEQA criteria listed above.

Will the project substantially alter the existing viewshed, including any changes in natural terrain?

Will the project deviate substantially from the form, line, color, and texture of existing elements of the viewshed that contribute to visual quality?

Will the project eliminate or block views of valuable visual resources?

Will the project result in significant amounts of backscatter light into the nighttime sky?

Will the project be in conflict with directly identified public preferences regarding visual resources?

Will the project result in a significant reduction of sunlight, or the introduction of shadows, in areas used extensively by the community?

Will the project result in a substantial and persistent visible exhaust plume?

Impact Duration

The visual analysis typically distinguishes three different impact durations. **Temporary impacts** typically last no longer than two years. **Short-term impacts** generally last no longer than five years. **Long-term impacts** are impacts with a duration greater than five years.

View Areas and Key Observation Points

The proposed project is visible from a number of areas in the project region. Energy Commission staff evaluated the visual impact of the project from each of these areas. Staff used Key Observation Points[1], or KOPs, as representative locations from which to conduct detailed analyses of the proposed project and to obtain existing conditions photographs and prepare visual simulations. KOPs are selected to be representative of the most critical locations from which the project would be seen. However, KOPs are not the only locations that staff considered in each view area.

Evaluation Process

For each view area, staff considered the existing visual setting and the visual changes that the project would cause to determine impact significance. Staff conducted a site visit and concluded that the KOPs presented in the Application were appropriate for this analysis. However, staff did request that all photographs and simulations be revised to life-size scale. The results of staff's analysis are summarized in **VISUAL RESOURCES Appendix VR-1**. Existing conditions photographs and photosimulations from each KOP are presented with all other figures in **VISUAL RESOURCES Appendix VR-3**.

Elements of the Visual Setting

To assess the existing visual setting, staff considered the following elements:

Visual Quality

Visual quality is an expression of the visual impression or appeal of a given landscape and the associated public value attributed to the visual resource. This analysis used an approach that considers visual quality as ranging from outstanding to low. Outstanding visual quality is a rating reserved for landscapes that would be what a viewer might think of as "picture postcard" landscapes. Low visual quality describes landscapes that are often dominated by visually discordant human alterations, and do not provide views that people would find inviting or interesting (Buhyoff et al., 1994).

Viewer Concern

Viewer concern is a measurement of the level of viewer interest regarding the visual resources in an area. Official statements of public values and goals reflect viewers' expectations regarding a visual setting. This analysis also employed land use as an indicator of viewer concern. Uses associated with 1) designated parks, monuments, and wilderness areas, 2) scenic highways and corridors, 3) recreational areas, and 4) residential areas are generally considered to have high viewer concern. However, existing landscape character may temper viewer concern on some State and locally

[1] The use of KOPs or similar view locations is common in visual resource analysis. The U.S. Bureau of Land Management (USDI BLM 1986a, 1986b, 1984) and the U.S. Forest Service (USDA Forest Service 1995) use such an approach.

designated scenic highways and corridors. Similarly, travelers on other highways and roads, including those in agricultural areas, may have moderate viewer concern depending on viewer expectations as conditioned by regional and local landscape features. Commercial uses, including business parks, typically have low-to-moderate viewer concern, though some commercial developments have specific requirements related to visual quality, with respect to landscaping, building height limitations, building design, and prohibition of above-ground utility lines, that indicate high viewer concern. Industrial uses typically have the lowest viewer concern because workers are focused on their work, and generally are working in surroundings with relatively low visual value.

Viewer Exposure

The visibility of a landscape feature, the viewing distance to the landscape feature, the number of viewers, and the duration of the view all affect the exposure of viewers to a given landscape feature. Visibility is highly dependent on screening and angle of view. The smaller the degree of screening and/or the closer the feature is to the center of the view area, the greater its visibility is. Increasing distance reduces visibility. Viewer exposure can range from low values for all factors, such as a partially obscured and brief background view for a few motorists, to high values for all factors, such as an unobstructed foreground view from a large number of residences.

Visual Sensitivity

The overall level of sensitivity of a view area to impacts due to visual change is a function of visual quality, viewer concern, and viewer exposure and can range from low to high.

Types of Visual Change

To assess the visual changes that the project would cause, staff considered the following factors:

Contrast

Visual contrast describes the degree to which a project's visual characteristics or elements (consisting of form, line, color, and texture) differ from the same visual elements established in the existing landscape. The degree of contrast can range from low to high. The presence of forms, lines, colors, and textures in the landscape similar to those of a proposed project indicates a landscape more capable of accepting those project characteristics than a landscape where those elements are absent. This ability to accept alteration is often referred to as visual absorption capability and typically is inversely proportional to visual contrast.

Dominance

Another measure of visual change is project dominance. Dominance is a measure of a feature's apparent size relative to other visible landscape features and the total field of view. A feature's dominance is affected by its relative location in the field of view and the distance between the viewer and the feature. The level of dominance can range from subordinate to dominant.

View Blockage

View blockage describes the extent to which any previously visible landscape features are blocked from view by the project. Blockage of higher quality landscape features by lower quality project features causes adverse visual impacts. The degree of view blockage can range from none to high.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The following discussion of Federal, State, and Local laws, ordinances, regulations, and standards is based on Section 8.11.5 (LORS) of the Application for Certification (EAEC 2001a, pp. 8.11-23 through 28).

FEDERAL

The proposed project is located on private land. Therefore, the project is not subject to federal regulations pertaining to visual resources.

STATE

In the project vicinity, Interstate 580 (I-580) has been designated eligible for State Scenic Highway status (Caltrans 2002). When a highway has been designated "scenic," the local jurisdiction is required to enact a scenic corridor protection program that protects and enhances scenic resources. A properly enforced program can mitigate the effects of uses that might otherwise detract from the scenic values of the corridor landscape. A corridor protection program would typically stipulate specific siting, landscaping, and screening requirements; as well as require appropriate structural characteristics and surface treatments to make new development more compatible with the existing environment.

LOCAL

The proposed generating facility site, two alternative transmission line alignments, and the gas line alternatives are located in unincorporated areas of Alameda County. The waterline alternatives are partially located in Alameda County and Contra Costa County while the recycled water alternatives are partially located in Alameda County, San Joaquin County, and Contra Costa County. Therefore, the proposed project would be subject to any local laws, ordinances, regulations, and standards (LORS) pertaining to the protection and maintenance of visual resources in Alameda, Contra Costa, and San Joaquin Counties. Each county's LORS apply to those portions of the project located in that particular county.

Sixteen applicable LORS from Alameda County are found in the Alameda County East County Area Plan, the Alameda County Scenic Route Element of the General Plan, and the Alameda County Zoning Ordinance. The Scenic Route Element of the Alameda County General Plan designates both Byron Bethany Road and Mountain House Road as scenic rural roads in the project area. Five sections of the San Joaquin County General Plan contain a total of seven visual resource related policies that are applicable to the proposed project. Four applicable policies from Contra Costa County are found in the Scenic Route section of the General Plan Transportation & Circulation Element.

The relevant local LORS and an assessment of the project's LORS consistency are presented in a later section of this analysis.

PROJECT DESCRIPTION

The following section describes the aspects of the project that may have the potential for significant visual impacts and includes the power plant and associated facilities, switchyard, electric transmission interconnection, natural gas pipeline, and water supply pipeline (see **PROJECT DESCRIPTION Figure 2**).

POWER PLANT AND ASSOCIATED FACILITIES

The proposed generating facility would occupy 55 acres of a 174-acre agricultural parcel consisting of flat valley land that extends along the east side of Mountain House Road from Kelso Road to Byron Bethany Road. The most visible features of the proposed project would include the three 175-foot tall HRSG stacks; the 65-foot tall air inlets to the combustion turbine generators (CTGs); the 57-foot tall steam turbine generator; the 100-foot tall auxiliary boiler stack; the 90-foot tall brine concentrator; and the 57-foot tall, 1,030-foot long cooling tower structure consisting of 19 cells (see **PROJECT DESCRIPTION Figure 2**). Other features associated with the generation site include ancillary structures; parking areas; an 8-foot non-reflective chain link fence, with an additional 2 feet of barbed or razor wire; a one million-gallon brine concentrator feed tank, a 300,000-gallon reverse osmosis feed storage tank; a 1.7-acre stormwater retention pond; and lighting (which is addressed in a separate section later in this analysis).

SWITCHYARD

A new on-site switchyard would be located immediately south of the steam turbine generator facilities. Components of the new switchyard, including transformers, take-off structures, and other electrical equipment, would have an industrial appearance similar to that of the components in the nearby Tracy Substation. The A-frame takeoff structures would be approximately 51 feet in height.

ELECTRICAL TRANSMISSION INTERCONNECTION

Power generated by the proposed project would be transferred over two new 0.5-mile long, double circuit 230 kV transmission lines that would exit the switchyard in parallel to the south and connect to the MID/TID 230 kV transmission line located along the south side of Kelso Road. **PROJECT DESCRIPTION Figure 2** shows the location of the proposed transmission lines. The MID/TID 230 kV line connects to Western's Tracy Substation on the west side of Mountain House Road, across from the proposed project site. The new angle and dead-end structures would be tubular steel with a neutral gray finish and range in height from 110 feet to 125 feet. The conductors would be non-specular to reduce visibility and the insulators would be non-reflective and non-refractive. Modifications also would be made at Tracy and Westley substations. The modifications would be confined to within the existing developed facility areas.

NATURAL GAS PIPELINE

Calpine has changed its proposed natural gas pipeline route (Calpine 2002pp). The proposed underground pipeline would be approximately 1.8 miles in length, extending from PG&E's existing gas transmission line at a point approximately 0.7 miles south of Kelso Road northeast along the Delta-Mendota Canal to Kelso Road, then east past Mountain House Road, then north to the power plant site.

The gas metering station at the beginning of the route would be sited adjacent to east side of the Delta-Mendota canal, approximately 0.7 miles south of Kelso Road. Associated with the gas pipeline would be a gas metering station at the interconnection with the PG&E gas pipeline, at the location specified in the AFC for Alternative route 2e. The metering station would consist of several aboveground pipeline segments (extending no more than six feet above the ground), valves, and a small structure for controls. All major components would be painted neutral earth-tone colors.

WATER SUPPLY PIPELINE

The proposed 2.1-mile, 24-inch underground pipeline (Route 3E) would convey approximately 4,600 acre-feet per year of raw water for cooling tower and process makeup water from the Byron Bethany Irrigation District (BBID) Canal 45 located to the west of the proposed project site and just east of the California Aqueduct. Three alternatives to the proposed route (Routes 3A, 3B, and 3D) would extend from the same BBID Canal 45 connection point via different routes, and one route would extend from Canal 45 at its intersection with Mountain House Road, south of the project site.

The water supply pipeline would require a water pump station at the starting point at BBID Canal 45. The station would consist of several pumps mounted on a concrete pad. The pumps could extend up to 10 feet in height.

Reclaimed water, in addition to raw water, would be used when available. Two alternative pipeline routes could convey reclaimed water from the future Mountain House Community Services District wastewater treatment plant, located near a branch of the Old River, to the project site. Either alternative would require the installation of a pump station adjacent to the treatment plant and the installation of an underground 24-inch pipeline. Alternative 4A would be approximately 4.3 miles in length and would extend from the pump station west along Bethany Road, northwest along Byron Bethany Road, and west along Kelso Road to the project site. Preferred Alternative 4B would be approximately 4.6 miles in length and would extend from the pump station west along Bethany Road and then northwest along Byron Bethany Road to the project site.

SETTING

REGIONAL LANDSCAPE

The proposed project would be located in the northeastern corner of Alameda County, east of the Coast Range and on the edge of the Sacramento-San Joaquin Delta within the San Joaquin Valley landscape zone. The region is characterized by flat valley lands

generally divided into large fields of row crops with some grazing land, periodically punctuated by the vertical forms of tall trees associated with windrows along field edges and farm dwellings. The flat valley floor appears to extend to the horizon on the north, east, and southeast. To the west and southwest, the landscape is framed by the grass- and brush-covered Coast Range and a sub-unit – the Diablo Range (to the south). The Coast Range in this area is characterized by a set of southeast-northwest trending ridges that are generally 800 to 1,200 feet in elevation, but which in places rise up to higher peaks. The most prominent Coastal Range landmarks visible from the project area are Brushy Peak, which is 7 miles to the west of the project site and 1,702 feet in elevation, and Mount Diablo, which is 19 miles northwest of the project site and 3,849 feet in elevation (EAEC 2001a, p. 8.11-1). The region is also noteworthy for the profusion of wind turbines scattered across the Coastal Range in this area, the numerous electric transmission lines converging on Tracy Substation, and the numerous canals associated with the California Water Project and Central Valley Project including the California Aqueduct and the Delta Mendota Canal.

Several recreation facilities are also found in the project area. The Livermore Yacht Club functions as a recreational area oriented toward boating and fishing on the Delta waterways. The Rivers End Marina, located adjacent to the Livermore Yacht Club, provides a boat ramp, boat slips, and on-ground boat storage. At the eastern end of Clifton Court Road, approximately 2.3 miles northeast of the project site, portions of the shoreline of the Clifton Court Forebay and the California Aqueduct are open to the public for bank fishing and in season, waterfowl hunting. The Lazy M Marina, which is adjacent to this area, provides a boat ramp, berths, on-ground boat storage, a small restaurant, and cabins. At the Bethany Reservoir located two miles southwest of the site, the California Department of Parks and Recreation operates the 600-acre Bethany Reservoir State Recreation Area. Developed facilities include a boat ramp, dock, and picnic and parking areas. In addition, the facility serves as a staging area for a bikeway that has been developed along the segment of the California Aqueduct that extends southward from the reservoir (EAEC 2001a, pp. 8.11-3 & 4).

PROJECT VIEWSHED

The distance zones used within this analysis are defined as *foreground* (0 to 1/2 mile), *middleground* (1/2 to 2 miles), and *background* (beyond 2 miles). Within these zones of influence are a number of viewing opportunities. Most foreground to middleground views of the proposed project would be limited to adjacent and nearby roadways and residences. The powerplant would be noticeably visible from Byron Bethany Road, Mountain House Road, Kelso Road, and Lindeman Road. Viewers would typically be motorists travelling in directions toward the project site and a few scattered rural residents along the roads referenced above. The principal viewing corridor and the area of greatest concern is along Byron Bethany Road which carries the most travelers in the immediate project vicinity, and which is also an Alameda County-designated scenic route as is Mountain House Road. In rural areas such as this, the scenic corridor within which the Scenic Route Element of the Alameda County General Plan's policies applies is defined as 1,000 feet on each side of the road (EAEC 2001a, p.8.11-26).

IMMEDIATE POWER PLANT VICINITY

The visual character of the immediate project vicinity reflects several layers of human use. In addition to being an agricultural landscape devoted to large-scale crop production, it is also a landscape in which a large number of infrastructure facilities have been sited, creating a scene that is a mosaic of the rural and technological. Much of the infrastructure is associated with the nearby transfer point between the California Department of Water Resources' (DWR) California Water Project and the U.S. Bureau of Reclamation's (USBR) Central Valley Project. DWR's 2,180-acre Clifton Court Forebay is 1.3 miles north of the project site . From the Forebay, water passes to the south through the California Aqueduct located to the west of the project site. Also to the west of the project site is the Delta-Mendota Canal with high, grass-covered levees. Immediately west of the project site is Tracy Substation, from which a number of electric transmission lines radiate out from across the valley floor, several of which pass in close proximity to the project site.

The immediate vicinity also includes a scattering of residential uses and a school. These uses are visible in the open, panoramic agricultural scene usually with a cluster of trees in the otherwise flat landscape. The residences closest to the project site are individual farm dwellings, which are typically surrounded by outbuildings and trees. Approximately 0.75-mile northeast of the project site, the Livermore Yacht Club includes a small cluster of approximately 30 residences, which are built immediately adjacent to the Old River and are oriented toward the water. In the corridor along Mountain House Road, approximately 0.75-mile southwest of the project site, is another small cluster of residences. Most of these residences are located along the west side of Mountain House Road to the south of Kelso Road. Mountain House School, a public elementary school serving approximately 60 students, is also located in this area along Mountain House Road, approximately one mile south of the project site.

ELECTRICAL TRANSMISSION INTERCONNECTION

The proposed electrical transmission interconnection is located within the power plant vicinity, described above.

CONSTRUCTION LAYDOWN AREAS

The proposed construction laydown areas are located within the power plant vicinity, described above.

VIEWING AREAS AND KEY OBSERVATION POINTS

Staff evaluated the visual setting and proposed project in detail from several viewing areas represented by six key viewpoints including: (1) Byron Bethany Road at the intersection with Mountain House Road, (2) Mountain House Road, just north of Kelso Road, (3) Mountain House Road at Mountain House School, (4) Kelso Road (westbound) approximately 0.55 mile southeast of the project site, (5) Byron Bethany Road at the intersection with Lindeman Road (the access road to the Livermore Yacht Club), and (6) Kelso Road approximately 0.45 mile east of the project site (viewing the transmission line).

Each of these key observation points is shown on **VISUAL RESOURCES Figure 1**. At each KOP a visual analysis was conducted, the results of which are presented in Appendix VR-1. Existing conditions photographs are presented in Appendix VR-3. A discussion of the visual setting for each KOP is presented in the following paragraphs.

KOP 1 – Byron Bethany Road at Mountain House Road

KOP 1 represents the view to the south from the intersection of Byron Bethany Road and Mountain House Road (see **VISUAL RESOURCES Figure 2A**). This viewpoint is approximately 0.4 mile north of the proposed site's northern boundary and 0.5 mile from the proposed project's closest structures. From this location, the proposed project would be within the "cone of vision" (45 degrees either side of the direction of travel) of southbound motorists on Byron Bethany Road and Mountain House Road. Byron Bethany Road is an Alameda County-designated scenic route (as is Mountain House Road) and is a major arterial with an average daily traffic (ADT) level of 13,820 vehicles per day (EAEC 2001a, p. 8.11-8).

Visual Quality

From this viewpoint, the most prominent features in the existing landscape are the flat, open agricultural fields that occupy the foreground and middleground; the local roadways that transition from foreground to middleground, the electric transmission structures converging on Tracy Substation, Tracy Substation with its complex of vertical forms and lines, and the distant hills of the Diablo Range. The view from KOP 1 encompasses a foreground to middleground flat, agricultural landscape dominated by electric transmission infrastructure and backdropped by the low, rolling to curvilinear landforms of the Diablo Range to the south. Also prominent in views from KOP 1 are the local roadways and the adjacent wood pole lines. Although the overall landscape character is rural agricultural, landscape character becomes more industrial in appearance in close proximity to Tracy Substation as a result of the profusion of energy transmission structures converging on and associated with the substation. Visual quality is low-to-moderate.

Viewer Concern

Since Mountain House Road and Byron Bethany Road primarily serve local traffic, most motorists on these roads would be sufficiently familiar with local conditions to anticipate a foreground to middleground rural agricultural landscape with a prominent energy transmission infrastructure presence. However, viewers' expectations would also include open panoramic vistas across the flat valley floor to the hills to the south. Although such views are partially obscured by the intermittent presence of transmission structures, the lattice construction of the towers renders them partially "transparent" and prevents the complete blockage of the hills beyond. Any additional blockage of vista views along either roadway would be perceived as an adverse visual change and viewer concern is moderate-to-high.

Viewer Exposure

Site visibility is high in that the view of the site from KOP 1 is open and unobstructed at a foreground viewing distance of approximately 0.5 mile. Although the number of viewers is high, the duration of view is moderate and overall viewer exposure is high.

Overall Visual Sensitivity

For southbound motorists on Byron Bethany Road and Mountain House Road, the low-to-moderate visual quality somewhat tempers the moderate-to-high viewer concern and high viewer exposure. The resulting overall sensitivity of the visual setting experienced from KOP 1 is moderate-to-high.

KOP 2 – Mountain House Road

KOP 2 represents the view to the north from northbound Mountain House Road, just north of the intersection with Kelso Road (see **VISUAL RESOURCES Figure 3A**). This viewpoint is approximately 0.3 mile south of the proposed site's southern boundary and 0.5 mile from the proposed project's closest structures. From this location, the proposed project would be within the "cone of vision" (45 degrees either side of the direction of travel) of northbound motorists on Mountain House Road. Mountain House Road has an estimated ADT of 1,800 vehicles per day (EAEC 2001a, p. 8.11-9). This view is also representative of the views from the residences in the farm complex on the southwest corner of the 174-acre project parcel. However, it should be noted that if the project is implemented, all residential use of these structures will cease.

Visual Quality

From this viewpoint, the most prominent features in the existing landscape are the flat, open agricultural fields that occupy much of the foreground and middleground to the east; the linear form of Mountain House Road transitioning from foreground to middleground with the adjacent wood pole line; the electric transmission structures converging on Tracy Substation (out of the frame of **Visual Resources Figure 3A** to the left); and the substation with its complex of vertical structural forms and lines and industrial character. Visual quality of this rural agricultural landscape is low-to-moderate and reflects the influence of the technological and industrial character imparted by Tracy Substation and the presence of numerous transmission lines.

Viewer Concern

Northbound motorists on Mountain House Road anticipate a foreground to middleground rural agricultural landscape with a prominent energy transmission infrastructure presence. However, viewers' expectations include open panoramic vistas north across the flat valley floor to the distant horizon. Although such views are partially obscured by the intermittent presence of transmission structures, the lattice construction of the towers renders them partially "transparent" and prevents the complete blockage of the sky and horizon beyond. Although the highly industrialized character of Tracy Substation immediately adjacent to this viewpoint influences viewer expectations along this portion of Mountain House Road, any additional view blockage of natural features by project structural elements would be perceived as an adverse visual change and overall viewer concern is moderate.

Viewer Exposure

Site visibility is high in that the view of the site from KOP 2 is open and unobstructed at a foreground viewing distance of approximately 0.5 mile. The number of viewers and duration of view are moderate and overall viewer exposure is moderate-to-high.

Overall Visual Sensitivity

For northbound motorists on Mountain House Road, the low-to-moderate visual quality, moderate viewer concern, and moderate-to-high viewer exposure result in an overall moderate visual sensitivity.

KOP 3 – Mountain House Road at Mountain House School

KOP 3 represents the view to the north from the Mountain House School and the adjacent residence (see **VISUAL RESOURCES Figure 4A**). This viewpoint is approximately 0.8 mile south of the proposed site's southern boundary and 0.9 mile from the proposed project's closest structures. From this location, the proposed project would also be within the cone of vision of northbound motorists on Mountain House Road.

Visual Quality

From this viewpoint, the most prominent features in the existing landscape are the flat, open agricultural fields that occupy much of the foreground and middleground to the east; the linear form of Mountain House Road transitioning from foreground to middleground with the adjacent wood pole line; and the electric transmission structures along Kelso Road that converge on Tracy Substation (out of the frame of **Visual Resources Figure 4A** to the left). Visual quality of this rural agricultural landscape is low-to-moderate and reflects a balance between the industrial character of nearby transmission infrastructure and the open panoramic views of a rural agricultural scene generally lacking in distinctive landscape features.

Viewer Concern

Viewers in proximity of the school and adjacent residence, as well as northbound motorists on Mountain House Road anticipate a foreground to middleground rural agricultural landscape with a noticeable middleground presence of electric transmission structures. However, viewers' expectations include open panoramic vistas north and east across the flat valley floor to the distant horizon. Any additional view blockage of natural features by project structural elements would be perceived as an adverse visual change and overall viewer concern is moderate.

Viewer Exposure

The view of the site from KOP 3 is open and unobstructed at a middleground viewing distance of approximately 0.9 mile and, while it is within the cone of vision of northbound motorists on Mountain House Road, it is situated at an indirect angle of view for the occupants of the school and residence. Therefore, the resulting site visibility is moderate. The number of viewers is also moderate and the duration of view is moderate-to-extended. Overall viewer exposure is moderate.

Overall Visual Sensitivity

The low-to-moderate visual quality, moderate viewer concern, and moderate viewer exposure result in an overall moderate visual sensitivity.

KOP 4 – Kelso Road

KOP 4 represents the view to the northwest from westbound Kelso Road, approximately 0.55 mile southeast of the project site's southeastern corner, 0.65 mile southeast of the switchyard, and 0.75 mile southeast of the closest generating facility structures (see **VISUAL RESOURCES Figure 5A**). This viewpoint was selected to represent views toward the project site from the vicinity of the two residences located on the north side of Kelso Road and the farm complex containing two additional residences located on the south side of Kelso Road. The proposed project would also be near the edge of the cone of vision of westbound motorists on Kelso Road.

Visual Quality

From this viewpoint, the most prominent features in the existing landscape are the flat, open agricultural fields that occupy much of the foreground and middleground; the rolling foothills of the Coast Range, the linear form of Kelso Road as it transitions from the foreground to middleground; and the electric transmission structures converging on Tracy Substation (out of the frame of **Visual Resources Figure 5A** to the left). Visual quality of this rural agricultural landscape is low-to-moderate, reflecting the absence of distinguishing visual characteristics and the influence of the industrial character imparted by the convergence of numerous transmission lines on Tracy Substation.

Viewer Concern

Residents in the vicinity of KOP 4 and westbound motorists on Kelso Road anticipate a foreground to middleground rural agricultural landscape and the presence of electric transmission lines. However, the introduction of additional energy infrastructure with prominent geometric forms and complex industrial character, accompanied by additional view blockage would be perceived as an adverse visual change. Overall viewer concern is moderate.

Viewer Exposure

Site visibility is high in that the view of the site from KOP 4 is open and unobstructed at a middleground viewing distance of approximately 0.75 mile. The number of residential viewers is low, as is the traffic volume on Kelso Road with an estimated 600 vehicles per day (EAEC 2001a, p. 8.10-5). The duration of view ranges from moderate for vehicles on Kelso Road to extended for residential viewers. The resulting overall viewer exposure is moderate.

Overall Visual Sensitivity

For residents and motorists on Kelso Road, the low-to-moderate visual quality and moderate viewer concern and exposure result in an overall moderate visual sensitivity.

KOP 5 – Byron Bethany Road at Lindeman Road

KOP 5 represents the view to the west from the intersection of Byron Bethany Road and Lindeman Road (see **VISUAL RESOURCES Figure 6A**). This viewpoint is approximately 0.75 mile from the proposed site's eastern boundary and 0.78 mile from the proposed project's closest structures. From this location, the proposed project would be within the cone of vision of northbound motorists on Byron Bethany Road, which is an Alameda County-designated scenic route and is a major arterial with an

average daily traffic (ADT) level of 13,820 vehicles per day (EAEC 2001a, p. 8.11-8). Lindeman Road provides the primary means of access to and egress from Rivers End Marina and the cluster of approximately 30 residences in the Livermore Yacht Club area (EAEC 2001a, p. 8.11-11).

Visual Quality

From this viewpoint, the most prominent features in the existing landscape are the flat open agricultural fields that occupy the foreground and middleground, Byron Bethany Road transitioning from foreground to middleground with its prominent linear form and diagonal lines, the vertical forms of numerous electric transmission structures converging on Tracy Substation, Tracy Substation with its complex of vertical forms and lines, and the rolling to angular forms and curvilinear lines of the Coast Range including Brushy Peak and Mount Diablo, which is a visible regional landmark. Visual quality is moderate and reflects the visual variety of the flat valley floor, rolling hills, and visual interest created by the prominent angular form of Mount Diablo. Although electric transmission infrastructure and wind turbines on the hills are visible in the landscape, they are not dominant landscape features at this middleground to background viewing distance.

Viewer Concern

Motorists on Byron Bethany Road and Lindeman Road anticipate a foreground to middleground rural agricultural landscape with the presence of energy transmission infrastructure. However, viewers' expectations include open, panoramic vistas across the flat valley with minimal obstruction of views to the hills and Mount Diablo to the west. Although such views are partially obscured by the intermittent presence of transmission structures, the lattice construction of most of the towers renders them partially "transparent" and prevents the complete blockage of the hills in the background. Any additional blockage of vista views from either roadway would be perceived as an adverse visual change and viewer concern is moderate-to-high.

Viewer Exposure

Site visibility is high in that the view of the site from KOP 5 is open and unobstructed at a middleground viewing distance of approximately 0.78 mile. However, it should be noted that as a viewpoint representative of the visual experience along Byron Bethany Road, viewing distances will range from background to foreground as northbound motorists converge on the site from the east. The number of viewers is high and the duration of view is extended as the site is within view of westbound traffic for over one mile. Overall viewer exposure is high.

Overall Visual Sensitivity

For northbound motorists on Byron Bethany Road, the moderate visual quality of the existing landscape combined with moderate-to-high viewer concern and high viewer exposure results in a visual setting with an overall moderate-to-high visual sensitivity.

KOP 6 – Kelso Road (Transmission Line)

KOP 6 represents the view to the west from westbound Kelso Road toward the alignment of the proposed transmission interconnection. This viewpoint is approximately 0.45 mile east of Mountain House Road at the western edge of a

farmstead located on the north side of Kelso Road. This viewpoint was selected to represent views of both westbound motorists on Kelso Road and the nearby residents (see **VISUAL RESOURCES Figure 7A**). The proposed transmission line crossing of Kelso Road would be in a direct line of sight for westbound motorists.

Visual Quality

Views from this KOP encompass a foreground flat, agricultural landscape with considerable electric transmission infrastructure. Visual quality of this rural agricultural landscape is low-to-moderate, reflecting the general absence of distinguishing visual features and the influence of industrial character imparted by the existing substation and numerous transmission lines.

Viewer Concern

Residents in the vicinity of KOP 6 and westbound motorists on Kelso Road anticipate a foreground to middleground rural agricultural landscape and the presence of electric transmission lines. However, the introduction of additional energy infrastructure with industrial character, accompanied by additional view blockage would be perceived as an adverse visual change. Overall viewer concern is moderate.

Viewer Exposure

Site visibility is high in that the view of the site from KOP 6 is open and unobstructed at a foreground viewing distance of approximately 0.35 mile from the proposed transmission line crossing of Kelso Road. While the number of viewers is low, the duration of view is extended, resulting in a moderate-to-high overall viewer exposure.

Overall Visual Sensitivity

For residents and motorists on Kelso Road, the low-to-moderate visual quality and moderate viewer concern result in a moderate overall visual sensitivity when combined with the moderate-to-high viewer exposure that would occur at this KOP.

IMPACTS

CONSTRUCTION IMPACTS

Construction of the proposed power plant and linear facilities would cause temporary adverse visual impacts due to the presence of equipment, materials, and workforce. Construction would involve the use of cranes, heavy construction equipment, temporary storage and office facilities, and temporary laydown/staging areas. Construction would include site clearing and grading, ditching of construction sites, construction of the actual facilities, and site and rights-of-way cleanup and restoration. The proposed project construction would occur over a 24-month period. Due to the relatively short-term nature of project construction, the adverse visual impacts that would occur during construction would not be significant. However, this conclusion assumes that complete restoration of construction areas and rights-of-way is accomplished. Proper implementation of Condition of Certification **VIS-1** would ensure that the visual impacts associated with project construction remain less than significant.

Also, while the majority of construction activities would occur during daylight hours when supplemental lighting would not be needed, some construction activity may occur at night to make up schedule deficiencies (EAEC 2001a, p. 2-23). In order to ensure that significant construction lighting impacts do not occur, staff recommends Condition of Certification **VIS-4**, presented later in this analysis.

OPERATION IMPACTS

An analysis of operation impacts was conducted for the view areas represented by the key viewpoints selected for in-depth visual analysis. The results of the operation impact analysis are discussed below by KOP and presented in the Visual Analysis Summary table included as **Visual Resources Appendix VR-1**. The visual impacts of night lighting are discussed in a separate section of this analysis. For each KOP, an evaluation of visual contrast, project dominance, and view blockage is presented with a concluding assessment of the overall degree of visual change caused by the proposed project.

Impacts of Power Plant Structures

VISUAL RESOURCES Table 1 presents the heights for a number of the project's key components. As shown in the table, the most prominent project structures would be the three 175-foot tall HRSG stacks, the 65-foot tall air inlets to the combustion turbine generators (CTGs), the 57-foot tall steam turbine generator, the 100-foot tall auxiliary boiler stack, the 90-foot tall brine concentrator, and the 57-foot tall, 1,030-foot long cooling tower structure consisting of 19 cells.

VISUAL RESOURCES Table 1
Dimensions of Key Project Components

Component	Height[1] (feet)	Length (feet)	Diameter / Width (feet)
HRSG Structure (to top of highest relief valve)	108		
HRSG Drums (to top of highest)	87		
HRSG Stacks	175		20
HRSG Casings	73	150	60
Gas Combustion Turbine Air Inlet Filters	65	60	40
Steam Turbine Generator Enclosure	57	115	32
Auxiliary Boiler Stack	100		4
Cooling Tower Structure	57	1,030	
Two Brine Concentrators	90		20
Two Brine Crystallizers	100 (approx.)		15 (approx.)
Raw Water Tanks	40		150
Demineralized Water Storage Tanks	40		52
Switchyard Conductor Take-off Structures	56		

1 Source: EAEC 2001a, Table 8.11-2

KOP 1 – Byron Bethany Road at Mountain House Road

VISUAL RESOURCES Figure 2B presents a visual simulation of the proposed project as viewed from KOP 1 at the intersection of Byron Bethany Road and Mountain House Road. The most obvious change to the landscape would be the introduction of prominent geometric forms with horizontal and vertical lines and complex industrial

character. The resulting structural mass would be substantially greater than that of the surrounding facilities.

Visual Contrast.

The proposed project would introduce the prominent geometric forms and vertical and horizontal lines of the HRSG structures and stacks. The project would also introduce the prominent horizontal, rectilinear form of the 19-cell cooling tower structure. These structural characteristics would not be consistent with the existing forms and lines established by the adjacent electric transmission infrastructure. Also, the scale of these introduced forms and structural masses would be substantially larger than other developed features in the immediate project vicinity. The resulting visual contrast would be high (see the Visual Analysis Summary table presented as **Visual Resources Appendix VR-1**).

Project Dominance

The rural agricultural landscape visible from KOP 1 is dominated by the flat, horizontal form of the valley floor and the prominent vertical forms of electric transmission line structures. The proposed power plant facilities would be spatially prominent in the center of the view of this highly exposed site and the large scale of the proposed facilities would dominate the other built features. Without landscaping, the project would appear co-dominant with the existing landforms. Also, the height of the vertical HRSG stacks would contribute to the structural prominence of the proposed facilities. Overall project dominance would be an intermediate level of co-dominant-to-dominant.

View Blockage

From KOP 1 the vertical HRSG structures and stacks and horizontal 19-cell cooling tower structure (lower quality landscape features) would block from view portions of sky and Coast Range hills (higher quality landscape features). The Coast Range hills are prominently visible to the south. However, this noticeable view blockage would be of short duration as a vehicle's position relative to the project site changes. Also, the more prominent (higher elevation) portion of the Coast Range hills with greater visual draw is further to the west and would not be blocked from view. The resulting view blockage would be moderate-to-high.

Overall Visual Change

From KOP 1, the overall visual change caused by the proposed project would be moderate-to-high due to the high degree of contrast that would occur from the project's co-dominant-to-dominant structures, combined with the project's moderate-to-high degree of view blockage of higher quality landscape features (Coast Range).

Visual Impact Significance

When considered within the context of the overall moderate-to-high visual sensitivity of the existing landscape and viewing characteristics, the moderate-to-high visual change that would be perceived from KOP 1 would cause an adverse and significant visual impact.

KOP 2 –Mountain House Road

VISUAL RESOURCES Figure 3B presents a visual simulation of the proposed project as viewed from KOP 2, on northbound Mountain House Road, just north of Kelso Road. The most obvious change to the landscape would be the introduction of prominent and complex geometric forms with horizontal and vertical lines and industrial character. The resulting structural mass would be substantially greater than that of the existing electric transmission facilities in the immediate project vicinity.

Visual Contrast

The proposed project would introduce the prominent geometric forms and vertical and horizontal lines of the HRSG structures and stacks. The project would also introduce the prominent horizontal, rectilinear form of the 19-cell cooling tower structure. These structural characteristics would not be consistent with the existing forms and lines established by the adjacent electric transmission infrastructure. Also, the scale of these introduced forms and structural masses would be substantially larger than other developed features in the immediate project vicinity. The resulting visual contrast would be high (see the Visual Analysis Summary table presented as **Visual Resources Appendix VR-1**).

Project Dominance

The rural agricultural landscape visible from KOP 2 is dominated by the flat, horizontal form of the valley floor and the prominent vertical forms of electric transmission line structures. The proposed power plant facilities would be spatially prominent in the center of the view of this highly exposed site and the large scale of the proposed facilities would dominate the other built features. The project would appear co-dominant with existing landforms. Also, the height of the vertical HRSG stacks would contribute to the structural prominence of the proposed facilities. Overall project dominance would be co-dominant.

View Blockage

From KOP 2 the proposed project structures (lower quality landscape features) would block from view a portion of sky and a relatively small portion of Coast Range hills (higher quality landscape features). While the Coast Range hills are noticeable background features, the more prominent (higher elevation) portion of the Coast Range hills with greater visual draw is farther to the south of the project's background (to the left of the structures shown in **VISUAL RESOURCES Figure 3B**). The resulting view blockage is, therefore, less severe than it would otherwise be if more prominent, higher quality landscape features were blocked from view. Also, the proposed structures would screen from view some of the existing electric transmission infrastructure, which appears relatively low on the horizon. The proposed project's resulting view blockage would be moderate.

Overall Visual Change`

From KOP 2, the overall visual change caused by the proposed project would be moderate-to-high due to the high degree of contrast that would result from the project's co-dominant structures, combined with the project's moderate degree of view blockage of higher quality landscape features (Coast Range and sky).

Visual Impact Significance

When considered within the context of the overall moderate visual sensitivity of the existing landscape and viewing characteristics, the moderate-to-high visual change that would be perceived from KOP 2 would cause an adverse and significant visual impact.

KOP 3 – Mountain House Road at Mountain House School

VISUAL RESOURCES Figure 4B presents a visual simulation of the proposed project as viewed from KOP 3, on Mountain House Road, at the Mountain House School. The most obvious change to the landscape would be the introduction of prominent and complex geometric forms with horizontal and vertical lines and considerable industrial character. The resulting structural mass would be noticeably greater than that of the existing electric transmission facilities in the immediate project vicinity.

Visual Contrast

The proposed project would introduce prominent geometric forms and vertical and horizontal lines associated with the HRSG structures and stacks, as well as the complex industrial character of the project's ancillary facilities, pipe racks, and equipment. The project would also introduce the prominent horizontal, rectilinear form of the 19-cell cooling tower structure and several prominent linear electric transmission towers. These structural characteristics would not be consistent with the existing forms and lines established by the adjacent electric transmission infrastructure. Also, the scale of these introduced forms and structural masses would be substantially larger than other developed features in the immediate project vicinity. The resulting visual contrast would be high at this middleground viewing distance (see **Visual Resources Appendix VR-1**).

Project Dominance

The rural agricultural landscape visible from KOP 3 is dominated by the flat, horizontal form of the valley floor and the prominent vertical forms of electric transmission line structures, the linear form of Mountain House Road, and roadside utility poles. The proposed power plant facilities would be spatially prominent in the center of the view of this highly exposed site and the large scale of the proposed facilities would dominate the other built features. The project would appear co-dominant with existing landforms. Also, the height of the vertical HRSG stacks would contribute to the structural prominence of the proposed facilities. Overall project dominance would be co-dominant.

View Blockage

From KOP 3, the proposed project structures (lower quality landscape features) would block portions of the sky and valley floor (higher quality landscape features) near the horizon line from view. Also, the project's foreground to middleground transmission structures and conductors would partially obscure a horizontal swath of sky above the horizon line. However, because those existing landscape features that would be blocked from view are relatively low on the horizon and generally lacking notable scenic qualities, the resulting view blockage would be less severe than it would otherwise be if more prominent, higher quality landscape features were blocked from view. The proposed project's resulting view blockage would be moderate.

Overall Visual Change

From KOP 3, the overall visual change caused by the proposed project would be moderate-to-high due to the high degree of contrast that would result from the project's co-dominant structures, combined with the project's moderate degree of view blockage of higher quality landscape features (sky and valley floor).

Visual Impact Significance

When considered within the context of the overall moderate visual sensitivity of the existing landscape and viewing characteristics, the moderate-to-high visual change that would be perceived from KOP 3 would cause an adverse and significant visual impact.

KOP 4 – Kelso Road

VISUAL RESOURCES Figure 5B presents a visual simulation of the proposed project as viewed from KOP 4, on Kelso Road, approximately 0.55 mile southeast of the project site. The most obvious change to the landscape would be the introduction of prominent and complex geometric forms with horizontal and vertical lines and industrial character. The resulting structural mass would be substantially greater than that of the existing electric transmission facilities in the immediate project vicinity.

Visual Contrast

The proposed project would introduce prominent geometric forms and vertical and horizontal lines associated with the HRSG facilities and 19-cell cooling tower, as well as the complex industrial character of the project's ancillary facilities, pipe racks, and equipment. These structural characteristics would not be consistent with the existing simple horizontal forms and lines of the valley landform or the linear forms of the adjacent electric transmission infrastructure (transmission towers and conductors). Also, the scale of these introduced forms and structural masses would be substantially larger than other developed features in the immediate project vicinity. The resulting visual contrast would be high (see **Visual Resources Appendix VR-1**).

Project Dominance

The rural agricultural landscape visible from KOP 4 is dominated by the flat, horizontal form of the valley floor. The proposed power plant facilities would be spatially prominent in the center of the view of this highly exposed site and the large scale of the proposed facilities would dominate the other built features. The project would appear co-dominant with the existing landform of the valley floor. Also, the height of the vertical HRSG stacks would contribute to the structural prominence of the proposed facilities. Overall project dominance would be an intermediate level of co-dominant-to-dominant.

View Blockage

From KOP 4 the proposed project structures (lower quality landscape features) would block from view portions of sky and valley floor (higher quality landscape feature) near the horizon. However, because those existing landscape features that would be blocked from view are relatively low on the horizon and generally lacking notable scenic qualities, the resulting view blockage would be less severe than it would otherwise be if more prominent, higher quality landscape features were blocked from view. The proposed project's resulting view blockage would be moderate.

Overall Visual Change

From KOP 4, the overall visual change caused by the proposed project would be moderate-to-high due to the high degree of contrast that would result from the project's co-dominant-to-dominant structures, combined with the project's moderate degree of view blockage of higher quality landscape features (sky and valley floor).

Visual Impact Significance

When considered within the context of the overall moderate visual sensitivity of the existing landscape and viewing characteristics, the moderate-to-high visual change that would be perceived from KOP 4 would cause an adverse and significant visual impact.

KOP 5 –Byron Bethany Road at Lindeman Road

VISUAL RESOURCES Figure 6B presents a visual simulation of the proposed project as viewed from KOP 5 at the intersection of Byron Bethany Road and Lindeman Road. The most obvious change to the landscape would be the introduction of prominent geometric forms with horizontal and vertical lines and complex industrial character. The resulting structural mass would be substantially greater than that of the surrounding facilities.

Visual Contrast

The proposed project would introduce the prominent geometric forms and vertical and horizontal lines associated with the HRSG structures and stacks and 19-cell cooling tower, as well as the complex industrial character of the project's ancillary facilities, pipe racks, and equipment. These structural characteristics would not be consistent with the forms and lines established by the broad, horizontal landform of the valley floor, rolling to angular landforms of the Coast Range, and adjacent linear electric transmission infrastructure. Also, the scale of these introduced forms and structural masses would be substantially larger than other developed features in the immediate project vicinity. The resulting visual contrast would be high (see Visual Resources Appendix VR-1).

Project Dominance

The rural agricultural landscape visible from KOP 5 is dominated by the rolling to angular forms of the Coast Range hills in the background to the west, and the flat, horizontal form of the valley floor, which is punctuated by the vertical forms of electric transmission line structures. The proposed power plant facilities would be spatially prominent in the center of the view of this highly exposed site and the large scale of the proposed facilities would dominate the other built features. The project would appear co-dominant with the existing landform of the valley floor. Also, the height of the vertical HRSG stacks, silhouetted against the sky, would contribute to the structural prominence of the proposed facilities. Overall project dominance would be an intermediate level of co-dominant-to-dominant.

View Blockage

From KOP 5, the proposed project structures (lower quality landscape features) would block from view a small portion of sky and portions of the Coast Range and Mount Diablo (higher quality landscape features) which are prominently visible in the background to the west of the site. However, this noticeable view blockage of prominent

landscape features with significant visual draw would be a transient experience as a viewer's (vehicle on Byron Bethany Road) position changes relative to the project site. The resulting view blockage would be moderate-to-high as opposed to high, which would be the case if the view of Mount Diablo and Brushy Peak were continually blocked from view while traveling down Byron Bethany Road.

Overall Visual Change

From KOP 5, the overall visual change caused by the proposed project would be moderate-to-high due to the high degree of contrast that would occur from the project's co-dominant-to-dominant structures combined with the project's moderate-to-high degree of view blockage of higher quality landscape features (e.g., sky, Coast Range hills, and Mount Diablo).

Visual Impact Significance

When considered within the context of the overall moderate-to-high visual sensitivity of the existing landscape and viewing characteristics, the moderate-to-high visual change that would be perceived from KOP 5 would cause an adverse and significant visual impact.

KOP 6 – Kelso Road (Transmission Corridor)

VISUAL RESOURCES Figure 7B presents a visual simulation of the proposed project as viewed from KOP 6, on Kelso Road, approximately 0.45 mile east of Mountain House Road. This KOP was established to evaluate the proposed electric transmission interconnection as it approaches and then spans Kelso Road. The most obvious change to the landscape would be the introduction of additional transmission structures into the foreground landscape.

Visual Contrast

The proposed project's transmission interconnection would introduce linear forms and vertical to horizontal lines, similar to those of the existing transmission lines in the project vicinity. However, the prominent horizontal lines of the transmission line conductors would contrast with the diagonal lines of existing conductors and vertical lines of existing structures. The scale of the introduced forms would be similar to existing developed features in the immediate project vicinity. The resulting visual contrast would be an intermediate level of low-to-moderate at this foreground viewing distance (see **Visual Resources Appendix VR-1**).

Project Dominance

The rural agricultural landscape visible from KOP 6 is dominated by the flat, horizontal form of the valley floor, the vertical forms of electric transmission line structures, the linear form of Kelso Road, and roadside utility poles. The proposed transmission line facilities would be spatially prominent in the center of the view toward the transmission interconnection. The scale of the proposed structures would be co-dominant with the existing landform of the valley floor and similar to the existing transmission infrastructure. As a result, the proposed transmission interconnection facilities would appear co-dominant with both the existing landforms and built features.

View Blockage

From KOP 6, the proposed project structures (lower quality landscape features) would partially obscure the Coast Range and sky in the background (to the west). However, this additional view impairment would represent only a slight increase in the blockage of Coast Range views when compared to the existing transmission lines, utility lines, and Tracy Substation. Therefore, the resulting view blockage caused by the proposed project would be low.

Overall Visual Change

From KOP 6, the overall visual change caused by the proposed project would be low-to-moderate, reflecting the low-to-moderate visual contrast that would result from the project's co-dominant structures, combined with the project's low degree of view blockage of higher quality landscape features (e.g., sky and Coast Range hills).

Visual Impact Significance

When considered within the context of the overall moderate visual sensitivity of the existing landscape and viewing characteristics, the low-to-moderate visual change that would be perceived from KOP 6 would cause an adverse but not significant visual impact.

Linear facilities

The visual impact of the electrical transmission interconnection is discussed above under KOP 6.

The proposed underground 20-inch natural gas supply line would not be visible following installation except for an occasional warning marker and would not result in adverse visual impacts. The various components of the natural gas metering station (several aboveground pipeline segments, valves, and a small structure for controls) would appear industrial in character. However, the closest publicly accessible areas from which the gas metering station would be potentially visible are along Mountain House and Kelso roads, 0.7 miles and farther from the metering station site. The eastern berm of the Delta-Mendota Canal adjacent to the site would provide substantial potential for visual absorption into the backdrop. The metering station would have minimal public visual access and would not be prominent in views from any nearby roads, including Mountain House Road. The size of the equipment would be relatively small. For these reasons, if colors that blend with the backdrop are used, the visual impact of the construction and operation of the natural gas metering station would not be significant.

The proposed 2.1-mile, 24-inch underground water supply pipeline (Route 3E) and two alternatives (Routes 3A and 3D) would require a water pump station at the starting point at BBID Canal 45 which would be located to the west of the proposed project site in an area with minimal public visual access (adjacent to the California Aqueduct). The resulting visual impacts would not be significant due to the minimal visibility of the pump station. However, Alternative Route 3B would require the installation of a pump station adjacent to Mountain House road at the crossing of Canal 45. This facility would be highly visible in the foreground of views from Mountain House and would result in a significant visual impact when viewed from Mountain House Road if not properly

screened by vegetation. However, effective implementation of staff's Condition of Certification **VIS-3** would reduce the resulting adverse visual impact to a level that would not be significant.

In addition to the use of raw water, two alternative pipeline routes could convey reclaimed water from the future Mountain House Community Services District waste water treatment plant - which would be located near a branch of the Old River – to the EAEC. Each alternative would require the installation of a pump station adjacent to the treatment plant and the installation of an underground 24-inch pipeline. The pipeline would be underground and would not result in adverse visual impacts. Also, within the visual context established by the wastewater treatment plant that the pump station would be adjacent to, the pump station would not result in significant visual impacts.

Lighting

The proposed project would be located in a rural agricultural area, which has relatively minimal existing night lighting except for clusters of lights at various infrastructure facilities in the region (Tracy Substation, Tracy Pumping Plant, the PG&E gas compressor station, and the Skinner fish screening facility). Although the proposed project site is currently devoid of night lighting, Tracy Substation, located immediately west of the project site, is a prominent source of night lighting in the project vicinity. Night lighting from Tracy Substation is visible from project vicinity roadways including Mountain House, Kelso, and Byron Bethany Roads. The other principal source of night lighting in the immediate project vicinity is the lighting associated with vehicle headlights on Byron Bethany Road.

The proposed project would require nighttime lighting for operational safety and security though the project would not be required to have FAA-style red, flashing warning lights on the HRSG stacks. Exterior lights would be hooded and directed onsite (EAEC 2001a, p. 8.11-15). High illumination areas not occupied on a regular basis would be provided with switches or motion detectors to light these areas only when occupied. Also, non-glare fixtures would be used (EAEC 2001a, p. 8.11-22).

However, given the lack of existing lighting at the project site and the close proximity of the site to Byron Bethany Road relative to other sources of light in the area (e.g., Tracy Substation), the proposed project lighting has the potential to change the character of the existing landscape at night both during construction and operation of the project. Project night lighting would be most visible from Mountain House Road (KOPs 1 and 2), Byron Bethany Road (KOP 5), and Kelso Road (KOPs 4 and 6), where views of the site are open and unobstructed with no intervening structures or light sources. Even shielded lighting elements could create significant light and glare impacts as a result of indirect lighting of project structures and backscatter. The potential for glare or nighttime distraction is of particular concern given the undivided nature of Byron Bethany Road and the high rates of travel speed typically observed.

CONSIDERATION OF IMPACTS IN RELATION TO CEQA SIGNIFICANCE CRITERIA

This analysis considered the potential impacts of the proposed project structures in relation to the four significance criteria for visual resource impacts listed in Appendix G of the CEQA Guidelines, under Aesthetics. These criteria are specified below.

1. Would the project have a substantial adverse effect on a scenic vista?

Scenic vistas in the project region would be available from Brushy Peak (approximately 8 miles to the west) and Mount Diablo (approximately 20 miles to the northwest). At these substantial viewing distances, the proposed structures would not be prominent features in the landscape and would not cause significant visual impacts. Also, views from Brushy Peak toward the project site encompass numerous intervening wind turbines that detract from scenic quality.

2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Although the proposed structures are located within the viewsheds of two county-designated scenic routes, they are not located within the viewshed of a state scenic highway nor would they damage the types of resources specified in this criterion. Therefore, project structures would not result in significant visual impacts under this criterion.

3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

As discussed in a previous section of this analysis, the proposed project would introduce prominent structures of industrial character into the foreground to middleground of views from nearby residences and roadways. The resulting visual change would range from low-to-moderate to high, depending on viewpoint location. Viewers on adjacent roads and at nearby residences would experience a high level of visual degradation resulting in a significant visual impact under this criterion.

4. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The project has the potential to create a new source of substantial light that would adversely affect nighttime views in the area and result in a significant visual impact under this criterion.

Mitigation of the visual impacts identified under Criteria 3 and 4 is addressed below in the Mitigation section.

CUMULATIVE IMPACTS

Cumulative impacts to visual resources could occur where project facilities or activities (such as construction) occupy the same field of view as other built facilities or impacted landscapes. It is also possible that a cumulative impact could occur if a viewer's perception is that the general visual quality of an area is diminished by the proliferation of visible structures (or construction effects such as disturbed vegetation), even if the new structures are not within the same field of view as the existing structures. The significance of the cumulative impact would depend on the degree to which (1) the

viewshed is altered; (2) visual access to scenic resources is impaired; (3) visual quality is diminished; or (4) the project's visual contrast is increased.

Staff has identified one other planned project in the viewshed which, when analyzed with the proposed project, may lead to cumulative impacts. The project is the Mountain House new community, which is to be developed over the next 20 to 40 years as a mixed-use suburban community. The community of Mountain House would be bounded by the San Joaquin County Line on the west, the Old River on the North, Mountain House Parkway/Patterson Pass Road on the east, and I-205 on the south. The full extent of the Mountain House development is not presently known, but depending on the density of the development and its proximity to both Byron Bethany Road and the Alameda/San Joaquin County Line, which is a middleground viewing distance (approximately 1.0 mile) from the proposed project site, cumulative visual impacts could occur. This conclusion is based on the likelihood that both the proposed project and elements of the Mountain House Project would be visible in the same field of view of motorists on Byron Bethany Road and, potentially, Kelso Road. The impact could be characterized as a change in the rural agricultural visual character to that of a suburban mixed-use and highly modified landscape. Though the likelihood of a cumulative visual impact is high, the significance of the impact cannot be determined at this time because the specific design of the portion of the community to be built in the EAEC viewshed has not been determined.

In addition, the proposed project structures would add substantially to a landscape that is already heavily impacted by energy infrastructure, including the very industrial appearing Tracy Substation located on Mountain House Road across from the proposed project. For the vast majority of those who would have views of the proposed project (travelers along Mountain House Road) the proposed project structures would cause a greater contribution to cumulative visual impacts than any of the other energy infrastructure features, including the Tracy Substation. Therefore, the project structures would constitute a substantial contribution to significant cumulative visual impacts in the viewshed. The proposed project would also contribute additional lighting impacts to a nighttime landscape that is already substantially impacted by the unshielded lights of Tracy Substation, thus contributing to a significant cumulative visual impact.

ENVIRONMENTAL JUSTICE

Staff has reviewed Census 2000 information that shows the minority population is less than fifty percent within a six-mile radius of the proposed project (please refer to **Socioeconomics Figure 1** in this Staff Analysis) and Census 1990 information that shows the minority/low income population within the same radius is less than fifty percent. However, there is a pocket of minority persons within a one-mile radius of the project site (north of Byron Bethany Road) that staff has considered for impacts. Based on the visual analysis, staff has concluded that persons residing north of Byron Bethany Road in the Livermore Yacht Club community would not have views of the project and thus would not experience significant visual impacts.

There are a few dispersed residences north of Byron Bethany Road that would be significantly impacted by the project. However, the significant visual impact that they would experience would be similar to that of other dispersed non-minority residences in

close proximity to the project site. Therefore, the minority population located north of Byron Bethany Road would not be disproportionately impacted by the proposed project in regard to visual resources.

FACILITY CLOSURE

There are at least three circumstances in which a facility closure can take place, planned closure, unexpected temporary closure and unexpected permanent closure.

Planned closure occurs at the end of a project's life, when the facility is closed in an anticipated, orderly manner, at the end of its useful economic or mechanical life, or due to gradual obsolescence. The closure plan that the project owner is required to prepare will address removal of the power plant structures.

Unexpected temporary closure occurs when the facility is closed suddenly and/or unexpectedly, on a short-term basis, due to unforeseen circumstances such as a natural disaster, or an emergency.

Unexpected permanent closure occurs if the project owner closes the facility suddenly and/or unexpectedly, on a permanent basis. This includes unexpected closure where the owner remains accountable for implementing the on-site contingency plan. It can also include unexpected closure where the project owner is unable to implement the contingency plan, and the project is essentially abandoned. The contingency plan that the project owner is required to prepare would address removal of the power plant structures. No special conditions regarding visual resources are expected to be required to address any of the three types of closure.

COMPLIANCE WITH LORS

LOCAL

VISUAL RESOURCES Table 4 provides a listing of the applicable LORS for the Counties of Alameda, San Joaquin, and Contra Costa. Twenty-seven LORS were found to pertain to the enhancement and/or maintenance of visual quality and the protection of views. Based on staff's analysis, it appears that the proposed project would be consistent with nineteen of the local policies referenced in **Table 4**, partially consistent with one local LORS, and inconsistent with seven local LORS. In five cases of inconsistency or partial consistency, either the inconsistencies would not initially produce a significant visual impact, or full and effective implementation of staff's conditions of certification would ensure that the project complies with these LORS. In two cases of project inconsistency, the inconsistency constitutes a significant visual impact that cannot be mitigated.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County			
Alameda County East County Area Plan	Policy 111 requires that development maximize views of a number of specified "prominent visual features."	NO	The only features listed that are visible from the project area are Mount Diablo and Brushy Peak. For each of these features, there will be a short segment along Byron Bethany Road where the project and these distant landmarks would be in direct alignment. In views toward the west from these segments, the project would be seen in front of the landmark feature, blocking views to the feature. If the project were located farther south on the parcel, those views would not be blocked. Therefore, the project does not maximize views of those features. However, the view blockage would be relatively brief as motorists pass these points at high rates of speed. Therefore, the project's inconsistency with this policy would constitute an adverse but not significant visual impact.
Alameda County East County Area Plan	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with Policy III. This policy is directed to shaping urban development to capitalize on views of scenic features which is not pertinent to EAEC. However, EAEC can be evaluated using a broader interpretation of Policy 111 based on the underlying goal the policy addresses – "To preserve unique visual resources and protect sensitive viewsheds." The far-distant views of Brushy Peak and Mount Diablo by passing northbound motorists on the Byron-Bethany may be briefly and partially obstructed by the proposed project, but these views by passing motorists are not within a "sensitive viewshed". Therefore, the proposed project is not inconsistent with the goal."
Alameda County East County Area Plan	Policy 113 requires the use of landscaping in both rural and urban areas to enhance the scenic quality of the area and to screen undesirable views. Choice of plants should be based on compatibility with surrounding vegetation, drought-tolerance, and suitability to site conditions; and in rural areas, habitat value and fire retardance.	YES	The project would be consistent with this policy in that the project would include landscaping around the periphery of the site (as originally proposed) to screen views of the project facilities. In developing its final landscape plan, the applicant would work with the County to ensure that the plant selections and planting designs meet the County's goals for habitat enhancement, drought tolerance, compatibility with surrounding vegetation, and fire retardance (EAEC 2001a, p. 8.11-25).

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County East County Area Plan	Policy 117 requires that utility lines be placed underground whenever feasible. When located above ground, utility lines and supporting structures shall be sited to minimize their visual impact.	PARTIALLY	The 230 kV transmission interconnection would be built overhead rather than underground which is typical for the higher voltage transmission facilities such as that associated with the proposed project. However, in general, it is feasible to construct a 230 kV transmission line underground. Therefore, absent a feasibility study for the project site that demonstrates undergrounding the transmission line would not be feasible, the proposed project would be inconsistent with this aspect of Policy 117. Since, the proposed aboveground interconnection would be of short length (0.5 mile) and would be located in an area where transmission infrastructure is a prominent feature in the landscape, the location of the line would minimize the resulting visual impact, which would be adverse but not significant. The proposed project would be consistent with this aspect of Policy 117. Overall, the project impacts causing this partial inconsistency would not be significant.
Alameda County East County Area Plan	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with Policy 117. The proposed 230 kV line is short (0.5 mile) and located In an area where transmission structure is already a prominent feature of the landscape. As explained in the Calpine application, the 'costs of undergrounding high voltage transmission lines… are very high.' Because of the requirements for expensive transition stations at each end of an underground line and for provisions for insulating and cooling the underground conductors, building high voltage lines underground generally costs about 7 times the cost of building them overhead. Given the very marginal aesthetic benefit that undergrounding the project transmission line would produce, it was determined that it would not be economically feasible or prudent to build the line underground." We believe this determination is reasonable in the geographic contest of many high-voltage transmission lines (PG&E, Western, MID, TID)."

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County East County Area Plan	Policy 197 requires that the County manage development and conservation of land in East County scenic highway corridors to maintain and enhance scenic values.	NO	There will be two brief segments along Byron Bethany Road where the project would appear to pass in front of Mount Diablo and Bushy Peak as viewed by westbound motorists. Both of these features are notable regional landmarks that are visible from this county-designated scenic highway. However, this view blockage would be relatively brief as motorists pass these points at high rates of speed. Therefore, the project structures' inconsistency with this policy would constitute an adverse but not significant visual impact.
Alameda County East County Area Plan	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with Policy 197. This policy is directed to the overall development and conservation of land to preserve and enhance views within scenic corridors, and is not intended as a prohibition of specific projects. Please refer to our comments regarding Policy 111, above. The brief, partial "blockage" of views by passing northbound motorists of distant geographic features does not diminish the goal to "preserve and enhance views within scenic corridors." (ECAP, p. 57) Similarly, occasional vapor plumes do not interfere with views or scenic values."
Alameda County East County Area Plan	Policy 264 states that new developments are to locate utility lines underground, whenever feasible.	NO	The 230 kV transmission interconnection is proposed to be built overhead rather than underground, which is typical for the higher voltage transmission facilities such as that associated with the proposed project. However, in general, it is feasible to construct a 230 kV transmission line underground, particularly for relatively short distances (such as the proposed 0.5-mile interconnection). Therefore, absent a feasibility study for the project site that demonstrates undergrounding the transmission line would not be feasible, the proposed project would be inconsistent with this aspect of Policy 264. Since the proposed aboveground interconnection would be of short length and would be located in an area where transmission infrastructure is a prominent feature in the landscape, the location of the line would minimize the resulting visual impact, which would be adverse but not significant. Therefore, the project's inconsistency with Policy 264 would not constitute a significant visual impact.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County East County Area Plan	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with Policy 264. This policy is intended to apply to undergrounding of distribution lines by new residential and commercial developments. The policy is inapplicable to this project. Please also see our comments on Policy 117, above."
Alameda County General Plan Scenic Route Element Principles	Principle: Provide a continuous, convenient system of scenic routes. Principle: Establish efficient and attractive connecting links. Principle: Provide for unimpeded pleasure driving. Principle: Coordinate scenic routes and recreation areas. Principle: Guide and control preservation and development of scenic routes through legislative standards.	YES	The proposed project does not specifically impede the implementation of any of the referenced principles
Alameda County General Plan Scenic Route Element Principles	Principle: Provide for normal uses of land and protect against unsightly features.	NO	The proposed project site has historically been used for agriculture. The proposed project would discontinue the historical use and introduce prominent structures of substantial mass and industrial character. These project aspects would result in adverse and significant visual impacts, which would be inconsistent with this policy. Since the visual impacts resulting from project structures cannot be mitigated to levels that are not significant, the project's inconsistency with this policy would constitute a significant visual impact.
Alameda County General Plan Scenic Route Element Principles	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with this policy. This policy is intended to allow "normally permitted uses"; it does not refer to "historical" uses, nor is it intended to limit uses to historical uses. The proposed project is a "normally permitted use". It is also incorrect to characterize the project or the vapor plumes as "unsightly features" merely because they are industrial features. "Unsightly features" as used in the plan, refers to "obtrusive signs, automobile wrecking and junk yards, and similar unsightly development or use of land."

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County General Plan Scenic Route Element Principles	Principle: Locate transmission towers and lines outside of scenic route corridors	NO	The proposed project (including the transmission interconnection) would be located within the 1,000-foot wide Mountain House scenic corridor so it would not be consistent with this policy. However there is considerable existing utility and energy infrastructure within the adjacent scenic corridors, which establishes a technological and industrial character within the landscape. The visual impact resulting from the presence of the proposed transmission line interconnection would not be significant.
Alameda County General Plan Scenic Route Element Principles	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with this policy. This policy states "New overhead transmission towers and lines should not be located within scenic corridors **when it is feasible to locate them elsewhere.**" In this instance, because of the location of the powerplant, and its relatively to the adjacent substation, it is not feasible to locate the transmission towers elsewhere."
Alameda County General Plan Scenic Route Element Principles	Principle: Establish architectural and site design review.	YES	The applicant has committed to working with the County of Alameda to ensure that various project design elements (landscaping, project heights, colors, and towers) meet County Goals (EAEC 2001a, p. 8.11-25).
Alameda County General Plan Scenic Route Element Principles	Principle: Use landscaping to increase scenic qualities of scenic route corridors.	NO	The proposed landscaping would not increase scenic quality compared to existing conditions and the residual visual impact would be adverse and significant. The proposed project's inconsistency with this policy would constitute a significant visual impact
Alameda County General Plan Scenic Route Element Principles	See above	Position of Alameda County Planning Department: YES	"The proposed project is consistent with this policy, because the landscaping will be "designed and maintained in scenic route corridors to provide added visual interest" and to screen views of the plant. The policy does not require landscaping to increase scenic quality compared to existing conditions."
Alameda County General Plan Scenic Route Element Principles	Principle: Landscape all properties and streets.	YES	The proposed project includes landscaping and vegetative screening.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Alameda County General Plan Scenic Route Element Principles	Principle: Encourage owners of large holdings to protect and enhance areas of scenic value.	NO	The proposed project site does not contain features of scenic value though as a large open parcel, it enables unobstructed views from adjacent roadways to the Coast Range hills to the west and south. There would be two brief segments along Byron Bethany Road where the project would appear to pass in front of Mount Diablo and Brushy Peak as viewed by westbound motorists. Both of these features are notable regional landmarks of scenic value that are visible from this county-designated scenic highway. However, this view blockage would be relatively brief because motorists pass these points at high rates of speed. Therefore, the project's inconsistency with this policy would constitute an adverse but not significant visual impact.
Alameda County General Plan Scenic Route Element Principles	See above	Position of Alameda County Planning Department: YES	"The proposed project site does not contain features of scenic value."
San Joaquin County			
San Joaquin County General Plan: Community Organization and Development Pattern	Objective: *To create a visually attractive county.* Policy 11: Development should complement and blend in with its setting. Policy 12: Aesthetics should be considered when reviewing development proposals.	YES YES	*Policy 11:* The proposed reclaimed water line would be underground and would not affect the existing landscape. The pump station associated with the reclaimed water line would be located adjacent to the future Mountain House Community Services District wastewater treatment plant and would appear consistent with that facility. *Policy 12:* The proposed project's potential impact on local and regional visual resources was considered in both the project proponent's application presented to the Commission and in staff's evaluation of the proposed project.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
San Joaquin County General Plan: Public Facilities	Objective: *To protect diverse resources upon which recreation is based, such as waterways, marshlands, wildlife habitats, unique land and **scenic features**, and historical cultural sites.* Policy 23: Scenic corridors along recreation travelways and scenic routes shall be protected from unsightly development	YES	The proposed reclaimed water line would be underground and would not adversely affect views from adjacent roads. The pump station associated with the reclaimed water line would be located adjacent to the future Mountain House Community Services District wastewater treatment plant and would appear consistent with that facility. Also, visual impacts resulting from project construction would be temporary and not significant.
San Joaquin County General Plan: Open Space	Objective: *To preserve open space land for the continuation of commercial agricultural and productive uses, the enjoyment of **scenic beauty** and recreation, the protection and use of natural resources, and for protection from natural hazards.* Policy 11: Outstanding scenic vistas shall be preserved and public access provided to them whenever possible. Policy 13: Development proposals along scenic routes shall not detract from the visual and recreational experience.	YES YES	*Policy 11:* Due to the underground nature of the proposed reclaimed water pipeline, there would be no adverse impact on any outstanding scenic vista. Also, the pump station associated with the reclaimed water line would be located adjacent to the future Mountain House Community Services District wastewater treatment plant and would not affect scenic vistas or access to scenic vistas. *Policy 13:* The temporary visual impact during construction of the underground pipeline would not significantly detract from the visual experience along adjacent roads and travelways. Longer-term, the pump station would be located at the future Mountain House Community Services District wastewater treatment plant and would not detract from visual and recreational experiences. The buried pipeline would not have a substantial aboveground presence and would not detract from the visual experience along adjacent roads.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
San Joaquin County General Plan: Air Quality	Objective: *To protect public health, agricultural crops, **scenic resources**, and the built and natural environments from air pollution.* Policy 1: San Joaquin County shall meet and maintain all State and national standards for air quality.	YES	The pump station and underground pipeline would not adversely affect existing State and national air quality standards and thus, would not adversely affect county scenic resources.
General Plan: Water Resources and Quality	Objective: *To recognize the surface waters of San Joaquin County as resources of State and national significance for which environmental and **scenic values** must be protected.* No specific policy statements	YES	The pump station to be located at the future wastewater treatment plant and underground pipeline would not impact the scenic values of any surface waters.
Contra Costa County			
Contra Costa County General Plan, Transportation & Circulation Element, Scenic Routes	Policy 5-34: Scenic corridors shall be maintained with the intent of protecting attractive natural qualities adjacent to various roads throughout the county.	YES	The proposed project would include the construction of a reclaimed water pipeline and a water supply pipeline. The reclaimed water line would include a segment adjacent to Byron Highway in Contra Costa County, which is a county-designated scenic route. Water Supply Alternative 3A would be located adjacent to Byron Highway. Both pipelines would be underground facilities and would have no long-term visual impacts on the scenic route or scenic views from the highway. As a best management practice (BMP), the project would also include filter/silt barriers in close proximity to the highway. However, these facilities would not adversely affect scenic views from the highway.
	Policy 5-36: Scenic views observable from scenic routes shall be conserved, enhanced, and protected to the extent possible.	YES	See Policy 5-34 above.

VISUAL RESOURCES Table 4 Proposed Project's Consistency with Local LORS Applicable to Visual Resources			
Source	**Description of Principles, Objectives, and Policies**	**Determination of Consistency Before Mitigation/ Conditions**	**Basis for Determination**
Contra Costa County General Plan, Transportation & Circulation Element, Scenic Routes	Policy 5-42: Provide special protection for natural topographic features, aesthetic views, vistas, hills and prominent ridgelines at "gateway" sections of scenic routes.	YES	See Policy 5-34 above.
	Policy 5-43: Aesthetic design flexibility of development projects within a scenic corridor shall be encouraged.	YES	See Policy 5-34 above.

MITIGATION

APPLICANT'S PROPOSED MITIGATION MEASURES

The applicant has proposed fourteen (14) mitigation measures to be incorporated into the project design to minimize visual impacts associated with the operation of the facility:

1. Creation of a 50-foot setback area between the edge of Mountain House Road and the project fence to provide spatial separation between the project and the road and to provide ample space for installation of landscaping. The landscape treatment along Mountain House Road will likely consist of formal plantings of a variety of shrub species to create a hedge along the edge of the road, backed up by plantings of informal groupings of tall evergreen trees to provide screening of the plant's taller elements.
2. Placement of the water tanks, administration building, and other smaller structures on the western edge of the site to create a transition in scale between the corridor along Mountain House Road and the plant's taller features.
3. Placement of landscaping consisting variously of rows and informal groupings of deciduous and evergreen trees and shrubs along the site perimeter (see **VISUAL RESOURCES Figure 10**). Specifically, the landscape plan would include:

   Along the eastern side and much of the northern and southern sides: A staggered double row of lombardy poplars and informal groupings of river she oaks.

   Along the western portion of the northern and southern sides: A double row of California pepper trees and informal groupings of western redbud and toyon.

Along the western side: A dense row of Pacific wax myrtle and informal groupings of evergreen native shrubs consisting of manzanita, coffeeberry, and sugar bush.

4. ing the switchyard on the southern side (in addition to [a] above): Pacific wax myrtle.Color treatment of fences to blend with the surrounding environment.
5. Minimal signage and construction of project signs using non-glare materials and unobtrusive colors. The design of any signs required by safety regulations will need to conform to the criteria established by those regulations.
6. Minimization of lighting to only those areas required for safety, security, or operations, and shielding of lighting from public view to the extent possible. Timers and sensors will be used to minimize the time that lights are on in areas where lighting is not normally needed for safety, security, or operation.
7. Direction and shielding of lighting to reduce light scatter and glare. Highly directional light fixtures will be used.
8. At present, the applicant is proposing to use a palette of neutral gray tones for the project structures. If Alameda County and the CEC feel a need to evaluate color issues further, additional color studies can be conducted to refine the color scheme to maximize the visual integration of project facilities into their landscape backdrop.
9. Design and installation of temporary cyclone fencing around the laydown area adjacent to the plant to reduce the visibility of construction period activities.
10. The transmission line structures used will be tubular steel with a neutral gray finish.
11. Non-specular conductors will be used.
12. Insulators will be non-reflective and non-refractive.
13. After construction, ground surfaces will be restored to their original condition, and any vegetation that had been removed during the construction process will be replaced.
14. Equipment in the gas metering and raw water pump stations will be painted earth-tone colors selected to maximize their visual integration into their backdrops.

ADDITIONAL MITIGATION PROPOSED BY STAFF

Energy Commission staff generally agrees with the applicant's proposals. However, staff's position is that some of these proposals need to be more precisely developed and in some cases expanded in conditions of certification. The following paragraphs discuss additional staff-proposed measures to mitigate project impacts to the extent feasible.

Mitigation of Impacts of Proposed Structures

As presently proposed, the project's structures would result in significant visual impacts when viewed from adjacent roads and nearby residences (as illustrated in views from KOPs 1 through 5). Based on consultations with staff of the California Department of Fish and Game and U.S. Fish & Wildlife Service, the type of landscaping necessary to effectively screen the project structures would conflict with the goals for wildlife habitat management and would therefore, not be acceptable.

Therefore, staff has concluded that the significant visual impacts resulting from project structures cannot be mitigated to less than significant levels.

Mitigation of Project Lighting Impacts

As previously discussed, the proposed project lighting has the potential to change the character of the existing landscape at night both during construction and operation of the project and could result in significant visual impacts to adjacent roads and nearby residences. Therefore, staff proposes to mitigate project night lighting impacts as follows:

The project owner shall design and install all lighting such that light bulbs and reflectors are not visible from public viewing areas and illumination of the vicinity and the nighttime sky is minimized during both project construction and operation (see also Conditions of Certification **VIS-4** and **VIS-5**).

Full and effective implementation of Conditions of Certification **VIS-4** and **VIS-5** would minimize lighting and keep lighting impacts to less than significant levels.

Mitigation of Impacts in Relation to CEQA Significance Criteria

The project's structures would substantially degrade the existing character and quality of the site and its surroundings (Criterion 3). Staff has concluded that mitigation is not available to reduce the significant visual impacts of project structures under Criterion 3 to levels that would not be significant.

The project's night lighting has the potential to create a new source of substantial light that would adversely affect nighttime views in the area and result in a significant visual impact under Criterion 4. However, the exterior lighting control measures proposed by the applicant and expanded by staff in Conditions of Certification **VIS-4** and **VIS-5** would ensure that lighting impacts would be less than significant with regard to Criterion 4.

Mitigation of Cumulative Impacts

Effective implementation of staff's proposed conditions Vis-4 and VIS-5 would keep the contribution of the project's lighting to significant cumulative visual impacts to a less than substantial level.

RESPONSE TO COMMENTS

Alameda County 2001a, re: Data Request 61:

Alameda County expressed its preference for the use of trees and shrubs rather than berms for visual screening of the site, biological effects notwithstanding. The County suggested the use of relatively small trees near the road to reduce the potential for biological impacts.

Response: Visual resources staff considered the use of relatively small trees near the roads surrounding the proposed site. However, staff of the California Department of Fish and Game and the U.S. Fish and Wildlife Service stated that this mitigation option was unacceptable.

Alameda County 2001b, re: Visual Impacts *The County's letter states that "The following three recommended conditions reflect the results of a cooperative effort between the County with the applicant to achieve thorough mitigation for perceived impacts to farmland and visual character of the area." For visual impact, the County recommends Condition 3:*

"Applicant shall design and submit for review by the County Planning Director a program for visual attenuation of views of the East Altamont Energy Center. The program should include sensitive landscaping with trees, shrubs and other appropriate vegetation for screening, low berms or hillocks where necessary, a paint scheme that helps the plant blend in with the background of hills or sky, depending upon the vantage point, and night lighting that illuminates only the site and necessary equipment, without light trespass offsite and generally without escape of light from the immediate area of the plant and operations above the horizontal. Trees and plantings shall be the preferred method of screening and shall be chosen and installation designed so as to minimize the loss of farmland; species should be chosen and installation designed so as to minimize the loss of farmland; species should be chosen for their attractiveness, suitable water and climate requirements, and where necessary, to avoid creation of perches for raptors, taking into account tree heights and stiffness of branches. Berms and hillocks should be used sparingly and only where trees would not be practical or would result in another major impact type, such as biological. Paint colors should be chosen for their ability to blend with the natural surroundings of grassy hillsides and bright sky, and should be applied to the plant with attention given to backgrounds as seen from various angles. Wherever possible , lighting practice shall employ full cutoff light fixtures and lighting shall be installed using motion sensitive circuitry to provide lighting when it is needed and for security. Examples and/or of trees, light fixtures and paint samples should be submitted with the report.

The report shall be submitted prior to issuance of building and grading permits for the project, and implemented features shall be subject to inspection and verification upon completion, and the inspector may take steps as necessary to ensure compliance with the approved program."

Response: Staff's proposed conditions of certification address the County's concerns regarding color (**VIS-2**), landscaping (**VIS-3**), and lighting (**VIS-5**)

G&DK-5: *Besides the plant itself being a visual eyesore, there is no landscaping on earth that would conceal the monstrosity of this plant. This is one more reason that this is not an appropriate placement of this plant. It would be visible from any direction for miles. How is it possible to place this project along designated scenic roads?*

Response: The impact portion of the Visual Resources section of the FSA concludes that significant adverse visual impacts would result from the proposed project. Staff has also concluded that the only landscape plan acceptable to the California Department of Fish and Game and the U.S. Fish and Wildlife Service would be insufficient to mitigate the significant visual impacts caused by project

structures. Therefore, the project as proposed would result in significant visual impacts that cannot be mitigated.

G&DK-7*: How brightly lit is a plant of this magnitude?*

Response: The proposed project has the potential to be very brightly lighted at night. However, staff's proposed conditions of certification require the applicant to control lighting in such a way that night lighting does not cause a significant visual impact.

G&DK-15: *At a Calpine meeting we were led to believe that the power would benefit the surrounding counties or at least California. Calpine being a merchant plant- the owners may sell the power from this merchant plant into the energy system to any buyer willing to make a purchase. Rumors have it that this may be Nevada and Oregon. Why would Alameda County allow a plant to be built on Prime Agriculture Land when it possibly will not even benefit our State: And – how is it allowed on a scenic highway?*

Response: The Visual Resources analysis identified potential inconsistencies with four principles of the County's General Plan Scenic Route Element pertaining to the protection of views from scenic route corridors. However, Alameda County has determined that the proposed project would be consistent with the Scenic Route Element.

G&DK-19: *Calpine can debate all they want on what kind of tree or landscaping is going to do the best job – bottom line is – there is no tree or landscaping that can hide the enormous size of this plant. The Yuba Sutter plant we visited was not hidden – an indication of what our visual impact will be. Our visual quality will be diminished for life. Our view of Clifton Court Forebay will be gone. When all is done we will be the ones left to have to look at and hear the plant every single day of our lives.*

Response: The impact portion of the Visual Resources section of the PSA concludes that significant adverse visual impacts would result from the proposed project. Staff has also concluded that the only landscape plan acceptable to the California Department of Fish and Game and the U.S. Fish and Wildlife Service would be insufficient to mitigate the significant visual impacts caused by project structures. Therefore, the project as proposed would result in significant visual impacts that cannot be mitigated.

G&MG-5: *I also have a concern about the bright lighting that will be at night on the country roads. When the Muso Olive plant added lighting to their plant off of Schulte and Mt. House Parkway, if you were driving south on Mt. House Parkway, at times the driver was blinded by these (I believe they were described as Cal Trans Lights) lights. Many times I was blinded by these lights and couldn't see the road. This also added brightness from the Safeway and Costco plants. There must have been complaints to the plant as they were adjusted, and they are not as blinding as before although they are still bright. I think the distance was about a mile or so.*

Response: The proposed project has the potential to be very brightly lighted at night. However, staff's proposed conditions of certification require the applicant to control lighting in such a way that night lighting does not cause a significant visual impact or public safety hazard.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The project's structures would result in significant visual impacts. Although the applicant has proposed a landscaping plan to partially screen project structures, staff has concluded that the screening would not reduce the impacts to less than significant levels. Furthermore, because of concerns of the biology staff of the California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) regarding impacts on wildlife resources in the immediate project vicinity, staff has been unable to develop an alternative landscape plan that would be both effective in screening project structures and acceptable to those agencies. Therefore, staff has concluded that the significant visual impacts resulting from project structures cannot be mitigated to less than significant levels

Proper implementation of mitigation measures proposed by the applicant and expanded by staff (Conditions **VIS-4** and **VIS-5**) would reduce lighting impacts to levels that would not be significant.

Project lighting would contribute to significant cumulative visual impacts from lighting. However, proper implementation of staff's proposed Conditions **VIS-4** and **VIS-5** would reduce the contribution of the project's lighting to cumulative lighting impacts to a less than substantial level.

The significant visual impact that would be experienced by the minority population located north of Byron Bethany Road would be similar to the impact experienced by other dispersed non-minority residences in close proximity to the project site. Therefore, the minority population would not be disproportionately impacted.

Staff finds that the proposed project structures would be inconsistent with seven applicable laws, ordinances, regulations, and standards (LORS) of Alameda County regarding visual resources and partially inconsistent with another. The Alameda County Community Development Agency has found that the project would be consistent with all of the County's applicable LORS regarding visual resources (Alameda County 2002).

RECOMMENDATIONS

The Energy Commission should adopt the following conditions of certification if it approves the project.

PROPOSED CONDITIONS OF CERTIFICATION

VIS-1 To minimize the visual impacts of project construction, the project owner shall visually screen the project site as well as staging and material and equipment storage areas with temporary screening fencing. The screening for the power plant site shall be no less than12 feet tall. The screening for staging and material and equipment storage areas shall be no less than 8 feet tall unless material or equipment will be more than 8 feet tall, in which case the screening shall be no less than 12 feet tall. Fencing shall be of an appropriate design, opacity, and color for each specific location, as determined by the CPM. All evidence of construction activities, including ground disturbance due to staging and storage areas, shall be removed and remediated to an original or improved condition upon completion of construction including the replacement of any vegetation or paving removed during construction.

The project owner shall submit to the CPM for review and approval a detailed screening and restoration plan the proper implementation of which will satisfy these requirements. The project owner shall install the temporary screening before the start of project construction.

Verification: At least 90 days prior to the start of site mobilization, the project owner shall submit the screening and restoration plan to the CPM for review and approval.

The project owner shall notify the CPM within seven days after installing screening at staging and material and equipment storage areas that it is ready for inspection.

The project owner shall notify the CPM within seven days after completing the surface restoration that it is ready for inspection.

VIS-2 Prior to first turbine roll, the project owner shall treat the surfaces of all project structures and buildings visible to the public such that their colors minimize visual intrusion and contrast by blending with the landscape; their surfaces do not create excessive glare; and they are consistent with local laws, ordinances, regulations, and standards. The project owner shall submit for CPM review and approval and to Alameda County for review and comment, a specific treatment plan the proper implementation of which will satisfy these requirements. The treatment plan shall include:

a) Specification, and 11” x 17” color simulations at life size scale when viewed at 18 inches, of the treatment proposed for use on project structures, including structures treated during manufacture;

b) A list of each major project structure, building, tank, transmission line tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation). The transmission line structures shall have a neutral gray finish. The conductors shall be non-specular conductors and non-reflective, and the insulators shall be non-refractive;

c) Two sets of brochures and/or color chips for each proposed color;

d) Samples with dimensions of at least five inches by seven inches of each proposed treatment and color on the predominant material to which each treatment would be applied to the heat recovery steam generator (HRSG), the HRSG stacks, and the cooling tower;

e) A detailed schedule for completion of the treatment; and

f) A procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated on site, until the project owner receives notification of approval of the treatment plan by the CPM.

Verification: The project owner shall submit its proposed treatment plan at least 90 days prior to ordering the first structures that are color treated during manufacture.

Prior to first turbine roll, the project owner shall notify the CPM that all buildings and structures are ready for inspection.

The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

VIS-3 The project owner shall install landscaping to provide the maximum feasible visual screening between the power plant and public view areas. The landscaping shall include rows and informal groupings of evergreen trees and shrubs around the power plant to provide a virtually continuous visual screen. To maximize visual screening the species to be used shall be fast-growing and capable of reaching a minimum height of 50 feet at maturity, and the size of the plants shall be the optimum for achieving maximum height as soon as possible. The landscaping may include additional deciduous trees and shrubs to provide variety. The project owner shall also plant evergreen trees and/or shrubs to visually screen the above-ground ancillary facilities associated with the linear project components, except for new transmission line structures for the interconnection.

The project owner shall submit a landscaping plan to the CPM for review and approval and to Alameda County for review and comment. The plan shall include:

a) 11”x17” color photo simulations of the proposed landscaping for the power plant at 10 years after planting as it is expected to appear in both summer and winter as viewed from KOPs 1, 2, and 5;
b) a detailed list of plants to be used, specifying their rates of growth and times to maturity given their proposed size and age at planting; and
c) a diagram showing the planting locations for each species. Landscaping shall be planted continuously around the power plant except as restricted by access roads and the electric transmission interconnection lines.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: The project owner shall submit the landscaping plan prior to first turbine roll and at least 90 days prior to installing the landscaping. The planting must be completed by start of project operation.

The project owner shall notify the CPM within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.

VIS-4 The project owner shall ensure that lighting for construction of the power plant is used in a manner that minimizes potential night lighting impacts, as follows:

a) All lighting shall be of minimum necessary brightness consistent with worker safety;

b) All fixed position lighting shall be shielded, hooded, and directed downward to minimize backscatter to the night sky and direct light trespass (direct lighting extending outside the boundaries of the construction area);

c) Wherever feasible and safe, lighting shall be kept off when not in use and motion detectors shall be employed; and

d) A lighting complaint resolution form (following the general format of that in **VISUAL RESOURCES Appendix VR-2**) shall be maintained by plant construction management, to record all lighting complaints received and to document the resolution of that complaint.

Verification: Within seven days after the first use of construction lighting, the project owner shall notify the CPM that the lighting is ready for inspection.

If the CPM notifies the project owner that modifications to the lighting are needed to minimize impacts, within 15 days of receiving that notification the project owner shall implement the necessary modifications and notify the CPM that the modifications have been completed.

The project owner shall report any lighting complaints and documentation of resolution in the Monthly Compliance Report.

VIS-5 The project owner shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. To meet these requirements the project owner shall ensure that:

a) Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to minimize light trespass outside the project boundary while taking into consideration security concerns.

b) All lighting shall be of minimum necessary brightness consistent with worker safety and security concerns;

c) High illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have switches or motion detectors to light the area only when occupied; and

d) Plant operations staff shall record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.

Verification: At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and to Alameda County for review and comment written documentation describing the lighting control measures and fixtures, hoods, shields proposed for use. The project owner shall incorporate the CPM's comments in lighting equipment orders.

Prior to first turbine roll, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.

The project owner shall report any complaints about permanent lighting and provide documentation of resolution in the Annual Compliance Report for that year.

VIS-6 The project owner shall comply with all Alameda County requirements regarding temporary and permanent signage). The design of any signs required by safety regulations shall conform to the criteria established by those regulations.

Verification: At least 90 days prior to installing signage, the project owner shall submit s signage plan to the CPM for review and approval and to Alameda County for review and comment.

The project owner shall notify the CPM within seven days after completing installation of signage that they are ready for inspection.

VIS-7 The project owner shall place the water tanks, administration building, and other smaller structures on the western edge of the power plant site to create a transition in scale between the corridor along Mountain House Road and the plant's taller features.

Verification: At least 60 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a plot plan that demonstrates compliance with the condition.

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APPENDIX VR – 1: SUMMARY OF ANALYSIS

APPENDIX VR – 2

LIGHTING COMPLAINT RESOLUTION FORM

East Altamont Energy Center Alameda County, California
Complainant's name and address: Phone number:
Date complaint received: Time complaint received:
Nature of lighting complaint:
Definition of problem after investigation by plant personnel: Date complainant first contacted:
Description of corrective measures taken: Complainant's signature: _____ Date:
Approximate installed cost of corrective measures: $ Date installation completed: Date first letter sent to complainant: _____(copy attached) Date final letter sent to complainant: _____(copy attached)
This information is certified to be correct: Plant Manager's Signature:

(Attach additional pages and supporting documentation, as required.)

APPENDIX VR – 3: VISUAL RESOURCES FIGURES

VISUAL RESOURCES Figure 1

Visual Resources Figure #s	Applicant Source Figure #s	*Title* and Additional Graphic Production Guidance
1	AFC Figures 2.1-1 And 8.11-1	*Location of Key Observation Points*. Use Figure 2.1-1 as the base and add Key Observation Points from Figure 8.11-1

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VISUAL RESOURCES Figure 2A

Visual Resources Figure #s	Applicant Source Figure #s	*Title* and Additional Graphic Production Guidance
2A	Data Response KOP 1 – Existing View	*KOP 1 – Existing view to the south from the intersection of Byron Bethany Road and Mountain House Road.*

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APPENDIX VR – 1
EAST ALTAMONT ENERGY PROJECT VISUAL RESOURCES STAFF ASSESSMENT - SUMMARY OF ANALYSIS
(DOES NOT INCLUDE PLUME ANALYSIS)

VIEWPOINT		EXISTING VISUAL SETTING								VISUAL CHANGE					IMPACT SIGNIFICANCE	
				Viewer Exposure												
Key Observation Point (KOP)	Description	Visual Quality	Viewer Concern	Visibility	Distance Zone	Number of Viewers	Duration of View	Overall Viewer Exposure	Overall Visual Sensitivity	Description of Visual Change	Visual Contrast	Project Dominance	View Blockage	Overall Visual Change	Mitigation / Conditions	Impact Significance with Mitigation
KOP 1 **BYRON BETHANY ROAD AT MOUNTAIN HOUSE ROAD** **Figure 2**	View to the south from the intersection of Byron Bethany Road and Mountain House Road, north of the project site.	**Low to Moderate** Foreground to middleground flat agricultural landscape dominated by electric transmission infrastructure and backdropped by the Diablo Range to the south.	**Moderate to High** Motorists on Mountain House Road anticipate a foreground to middleground landscape dominated by energy infrastructure, but with a visible background of distant rolling hills. Any additional blockage of views of surrounding hills would be perceived as an adverse visual change.	**High**	**Foreground**	**High**	**Moderate**	**High**	**Moderate to High**	Addition of prominent geometric forms with horizontal to vertical lines and complex industrial character. Structural mass would be greater than surrounding facilities. Facilities would be visible and co-dominant at this foreground viewing distance.	**High**	**Co-Dominant to Dominant**	**Moderate to High**	**Moderate to High**	**Applicant's Measures & Staff's Conditions: VIS-2 VIS-3 VIS-4 VIS-5**	**Significant**
KOP 2 **MOUNTAIN HOUSE ROAD** **Figure 3**	View to the north from northbound Mountain House Road, just north of Kelso Road.	**Low to Moderate** Foreground to middleground flat agricultural landscape with a prominent presence of electric transmission infrastructure that does not obscure the distant horizon.	**Moderate** Motorists on Mountain House Road anticipate a foreground to middleground agricultural landscape with prominent energy infrastructure. However, the addition of prominent geometric forms with significant mass that blocks views of the horizon would be would be perceived as an adverse visual change.	**High**	**Foreground**	**Moderate**	**Moderate**	**Moderate to High**	**Moderate**	Addition of prominent geometric forms with horizontal to vertical lines and complex industrial character. Structural mass would be greater than surrounding facilities. Facilities would be visible and co-dominant at this foreground viewing distance.	**High**	**Co-Dominant**	**Moderate**	**Moderate to High**	**Applicant's Measures & Staff's Conditions: VIS-2 VIS-3 VIS-4 VIS-5**	**Significant**
KOP 3 **MOUNTAIN HOUSE ROAD AT MOUNTAIN HOUSE SCHOOL** **Figure 4**	View to the north from northbound Mountain House Road at Mountain House School.	**Low to Moderate** Foreground to middleground flat agricultural landscape with a prominent presence of electric transmission infrastructure that does not obscure the distant horizon.	**Moderate** Motorists on Mountain House Road anticipate a foreground to middleground agricultural landscape with prominent energy infrastructure. However, the addition of prominent geometric forms with significant mass that blocks views of the horizon would be would be perceived as an adverse visual change.	**Moderate**	**Middleground**	**Moderate**	**Moderate to Extended**	**Moderate**	**Moderate**	Addition of prominent geometric forms with horizontal to vertical lines and complex industrial character. Structural mass would be greater than surrounding facilities. Facilities would be visible and co-dominant at this middleground viewing distance.	**High**	**Co-Dominant**	**Moderate**	**Moderate to High**	**Applicant's Measures & Staff's Conditions: VIS-2 VIS-3 VIS-4 VIS-5**	**Significant**
KOP 4 **KELSO ROAD (Westbound)** **Figure 5**	View to the northwest from westbound Kelso Road, approximately 0.55 mile southeast of the project site.	**Low to Moderate** Foreground to middleground flat agricultural landscape with numerous electric transmission lines in the middleground of views backdropped by rolling hills and wind turbines.	**Moderate** Westbound motorists on Kelso Road anticipate a foreground to middleground agricultural landscape and the presence of energy infrastructure. However, the addition of prominent geometric forms with complex industrial character would be would be perceived as an adverse visual change.	**High**	**Middleground**	**Low**	**Moderate to Extended**	**Moderate**	**Moderate**	Addition of prominent geometric forms with horizontal to vertical lines and complex industrial character. Structural mass would be greater than surrounding facilities. Facilities would be visible and co-dominant at this middleground viewing distance.	**High**	**Co-Dominant to Dominant**	**Moderate**	**Moderate to High**	**Applicant's Measures & Staff's Conditions: VIS-2 VIS-3 VIS-4 VIS-5**	**Significant**
KOP 5 **BYRON BETHANY ROAD AT LINDEMAN ROAD** **Figure 6**	View to the west from the intersection of Byron Bethany and Lindeman Roads.	**Moderate** Foreground to middleground flat agricultural landscape with numerous electric transmission lines but backdropped by rolling to angular hills, Brushy Peak, and Mount Diablo which is a visible regional landmark.	**Moderate to High** Motorists on Byron Bethany Road (a County-designated scenic route) anticipate a foreground to middleground agricultural landscape and the presence of energy infrastructure, as well as unobstructed views of the hills beyond and Mount Diablo. Any increase in view blockage or diminishment of visual quality would be perceived as an adverse visual change.	**High**	**Middleground**	**High**	**Extended**	**High**	**Moderate to High**	Addition of prominent geometric forms with horizontal to vertical lines and complex industrial character. Structural mass would be greater than surrounding facilities and would result in blockage of views toward Brushy Peak and Mount Diablo.	**High**	**Co-Dominant to Dominant**	**Moderate to High**	**Moderate to High**	**Applicant's Measures & Staff's Conditions: VIS-2 VIS-3 VIS-4 VIS-5**	**Significant**
KOP 6 **KELSO ROAD (Transmission Corridor)** **Figure 7**	View to the west from Kelso Road, approximately 0.45 mile east of Mountain House Road.	**Low to Moderate** Foreground to middleground flat agricultural landscape with numerous electric transmission lines in the foreground to middleground of views backdropped by rolling hills and wind turbines.	**Moderate** Westbound motorists on Kelso Road anticipate a foreground to middleground agricultural landscape and the presence of energy infrastructure. However, the introduction of additional energy infrastructure with industrial character into the existing landscape would be would be perceived as an adverse visual change.	**High**	**Foreground**	**Low**	**Extended**	**Moderate to High**	**Moderate**	Addition of prominent linear forms with horizontal to vertical lines. Structural character would be similar to and consistent with the adjacent transmission facilities.	**Low to Moderate**	**Co-Dominant**	**Low**	**Low to Moderate**	**Applicant's Measures & Staff's Conditions: VIS-2**	**Adverse but Not Significant**